



MISSOURI DEPARTMENT OF TRANSPORTATION
8' CUT ROTARY MOWER

GENERAL - The intent and purpose of this specification is to establish minimum quality, safety and performance standards for heavy-duty 3 pt. hitch, P.T.O. driven dual gear box rotary mower providing a centerpull cutting swath of 8', without evidence of streaking. The intent and purpose of this specification is also to describe a mower with engineering and design that will assure trouble-free Highway right-of-way mowing with a minimum amount of down time. Single gear box mowers will not be acceptable. Parts and service must be available within 24 hours of contact. *Finish cut type of mower is not acceptable.*

DRIVE - The mower shall be gear driven with power transmitted directly from tractor P.T.O. to a heavy duty primary gear box or power divider which will transmit power to secondary gear box(s). The output shafts of primary and secondary gear boxes shall be the spindles for the blade carrier assemblies. The mower shall operate with tractors with 540 RPM P.T.O. speed.

GEAR BOX ASSEMBLIES - Gears shall be of forged heat treated steel running on lubricated bearings, completely enclosed in malleable or heavy-duty steel housing. Gear boxes shall be reinforced base mounted type.

PRIMARY GEAR BOX - The primary power divider or gear box shall have approximate rating of minimum 70 HP.

SECONDARY GEAR BOX - The secondary gear box(s) shall have approximate rating of minimum 50 HP. The secondary box(s) shall be of a design allowing the rotation of the blades to be reversed. (You must include specifications, literature and instructions for rotation reversal in your bid.)

DRIVE LINES AND U-JOINTS - Heavy-duty self adjusting and telescopic drive shafts with main drive shaft as a constant velocity type and U-Joints will be not less than 35R size and type. All U-Joints will be equipped with neoprene seals and needle bearings. P.T.O. drive lines shall have quick disconnect slip clutches. Drive lines shall have metal guards or shields meeting J232 requirements.

STRUCTURAL - Deck and side bands minimum 7 gauge steel with deck reinforced. Equipped with a torsion bar type to reduce vibration. Must have rolled I beam sides made of 1/4" material shaped to form sides of cutter.

BLADES AND RUNNERS - The blades shall be heavy-duty 1/2" x 4" SAE 5160 chrome steel suction type with breakaway feature. Replaceable skid shoes shall be provided for protection in the event the tractor drops in a low place or ridges over a high point.

CUTTING HEIGHT - Adjustable from 4" - 10".

WHEELS, AXLES AND SUSPENSIONS - The mower shall be equipped with not less than two trail type laminated tires properly spaced for best weight distribution. The wheels will be mounted with a minimum of five lug bolts and the wheel hubs will have roller bearings.

HITCH - 3 pt. hitch with pin diameters and inside spread width suitable for attaching to tractors with category II three point hitch and lift, double lift chain assemblies.

SAFETY - The mower shall have steel side deflectors, front and rear 5/16" safety chain guards to protect the area surrounding the mower from flying objects. All guards and shields will meet SAE J232 requirements.

COLOR - Color to be manufacturer's standard safety or industrial yellow over a prime coat.

NOTE: Complete unit must be manufactured in accordance with the latest adopted OSHA or SAE Standards and amendments thereto.

The Missouri Highways and Transportation Commission reserves the right to waive technicalities and to reject any or all bids and no bid is final until formally accepted by the Commission.